IN THE CLAIMS:

Please amend the claims as follows:

1. *(currently amended)* A diversity antenna arrangement for a mobile station having a general ground element, the diversity antenna arrangement including at least a pair of antenna elements, each antenna element comprising:

a first elongated conductive element;

a leg portion coupled to the first elongated conductive element, the leg portion containing a feed arrangement for feeding the antenna element against the ground element; and

a second elongated conductive element;

the first and the second elongated conductive elements being transversal to each other and in contact with each other;

wherein the resonant frequency of each antenna element is substantially the same.

2. *(original)* A diversity antenna arrangement according to claim 1, further comprising a short-circuiting entity coupled between the first elongated conductive element and the general ground element.

3. *(original)* A diversity antenna arrangement according to claim 1, further comprising a matching circuit serially coupled with the feed arrangement.

4. *(original)* A diversity antenna arrangement according to claim 1, further comprising a matching circuit parallelly coupled with the feed arrangement.

5. *(original)* A diversity antenna arrangement according to claim 1, further comprising a matching circuit integrated into a common structure with the diversity antenna arrangement.

6. *(original)* A diversity antenna arrangement according to claim 1, wherein the first elongated conductive element, the leg portion, and the second elongated conductive element are arranged to be formed from a unitary metal part.

7. *(currently amended)* A diversity antenna arrangement according to claim 2, wherein the first elongated conductive element, the leg portion, the second elongated conductive element, and the short-circuiting ~~element~~ entity are arranged to be formed from a unitary metal part.

8. *(original)* A diversity antenna arrangement according to claim 2, wherein inductive loads are added to the short-circuiting entity.

9. *(original)* A diversity antenna arrangement according to claim 1, wherein the first elongated conductive element and the second elongated conductive element are adapted to be in contact at an end of the each elongated conductive element.

10. *(original)* A diversity antenna arrangement according to claim 1, wherein the first elongated conductive element and the second elongated conductive element are adapted to form a generally L-shaped unitary metal element.

11. *(original)* A diversity antenna arrangement according to claim 1, wherein the first conductive element and the second conductive element are adapted to form a generally semi-ellipsoidal unitary metal element.

12. *(original)* A diversity antenna arrangement according to claim 1, wherein an open end of the second elongated conductive element is adapted to be bent generally towards the ground element.

13. *(original)* A diversity antenna arrangement according to claim 1, wherein the antenna element further comprising:

a third elongated conductive element; and

a fourth elongated conductive element;

the third and fourth elongated conductive element being transversal to each other, in contact with each other, and electrically coupled with any of said elements.

14. *(original)* A diversity antenna arrangement according to claim 13, wherein said electrical coupling comprises at least one of a direct galvanic coupling, and electromagnetic field coupling.

15. *(original)* A diversity antenna arrangement according to claim 13, further comprising a short-circuiting entity coupled between the first elongated conductive element and the general ground element.

16. *(original)* A diversity antenna arrangement according to claim 13, wherein the third and fourth elongated conductive elements are short-circuited separately from the first and the second elongated conductive elements.

17. *(original)* A diversity antenna arrangement according to claim 13, wherein the elongated conductive elements are adapted to form a stacked structure.

18. *(original)* A diversity antenna arrangement according to claim 13, wherein the elongated conductive elements are adapted to act as parasitic resonators for widening an operational radio frequency bandwidth of the antenna element.

19. *(original)* A diversity antenna arrangement according to claim 13, wherein the first, the second, the third and the fourth elongated conductive element, and the leg portion are arranged to be formed from a unitary metal part.

20. *(original)* A diversity antenna arrangement according to claim 13, wherein unitary metal element formed by the first and the second elements is coupled by at least one connection to unitary metal element formed by the third and the fourth elements.

21. *(original)* A diversity antenna arrangement according to claim 15, wherein the first, the second, the third and the fourth elongated conductive elements, the leg portion, and the short-circuiting entity are arranged to be formed from a unitary metal part.

22. *(original)*A diversity antenna arrangement according to claim 15, wherein inductive loads are added to the short-circuiting entity.

23. *(original)* A diversity antenna arrangement according to claim 1, wherein the antenna elements are arranged to be positioned as far away from each other as a form of the general ground element allows.

24. *(original)* A diversity antenna arrangement according to claim 1, wherein the antenna elements are arranged to be positioned as far away from each other as a metal chassis of the mobile station allows.

25. *(original)* A diversity antenna arrangement according to claim 1, wherein the antenna elements are arranged to be positioned at substantial corners of the general ground element.

26. *(original)* A diversity antenna arrangement according to claim 1, further comprising at least one additional antenna element operating in at least one different frequency band integrated with the diversity antenna arrangement to create a multi-band diversity antenna arrangement.

27. *(original)* A diversity antenna arrangement according to claim 1, further comprising separate at least one additional antenna element operating in at least one different frequency band to create multi-band antenna arrangement with diversity function.

28. *(original)* A diversity antenna arrangement according to claim 13, further comprising at least one additional antenna element operating in at least one different frequency band integrated with the diversity antenna arrangement to create a multi-band diversity antenna arrangement.

29. *(original)* A diversity antenna arrangement according to claim 13, further comprising separate at least one additional antenna element operating in at least one different frequency band to create multi-band antenna arrangement with diversity function.

30. *(original)* A diversity antenna arrangement according to claim 1, wherein the antenna element is at least partly outside of the general ground element.

31. *(original)* A diversity antenna arrangement according to claim 1, wherein said diversity antenna arrangement comprises a compact diversity antenna arrangement suitable to fit for a cellular mobile phone.

32. *(original)* A diversity antenna system for a mobile station having a general ground element, the diversity antenna system including at least a pair of antenna elements, each antenna element comprising:

a generally L-shaped radiating element; and

a leg portion coupled to the generally L-shaped radiating element, the leg portion containing a feed arrangement for feeding the antenna element against the ground element.

33. *(original)* A diversity antenna system for a mobile station having a general ground element, comprising:

at least a pair of planar inverted F antennas (PIFAs), for each PIFA, metallization is adapted to be removed from a generally center region of the PIFA in such a way that two current paths can be formed on generally edges of the PIFA, and further one of the formed current path is adapted to be removed by a removal of a corresponding metallization of said current path.

34. *(original)* A method for manufacturing a diversity antenna arrangement for a mobile station, the diversity antenna arrangement comprising a general ground element and at least a pair of antenna elements, the method comprising the steps of:

obtaining at least a pair of planar inverted F antennas (PIFAs), for each PIFA, removing metallization from a generally center region of the PIFA in such a way that two current paths can be formed on generally edges of the PIFA, and

removing one of the formed current path by a removal of a corresponding metallization of said current path.

35. *(original)* A method of operating a mobile station for a mobile communications network, the mobile station comprising a pair of operational states and a general ground element, the method comprising the steps of:

providing a pair of antenna elements, each antenna element comprising:

a generally L-shaped radiating element; and a general conductive leg portion being operatively coupled to the generally L-shaped radiating element, the leg portion containing a feed arrangement for feeding the antenna element against the ground element, wherein the pair of antenna elements are aligned so that directions are substantially orthogonal;

operating the mobile station in a first operational state wherein in a given direction one of the pair of antenna elements is substantively maximally responsive to a certain polarization; and

operating the mobile station in a second operational state wherein in said direction the other of the pair of antenna elements is substantively maximally responsive to a polarization that is sufficiently different to that of the first antenna element.